FIRST RECORD OF *LAGENOPHRYS DISCOIDEA* KELLICOTT (CILIOPHORA, PERITRICHA, LAGENOPHRYIDAE), ECTOCOMMENSAL OF ARGENTINIAN OSTRACODS [1]

KEYWORDS: Ciliates, epizoics, ostracods, Argentina.

As a result of the analysis of benthic samples from San Miguel del Monte lagoon, Buenos Aires, Argentina, the presence of *Lagenophrys discoidea* Kellicott, 1887 as ectocommensal on *Cyprinotus similis* (Wierzejski, 1893) was recorded. This interesting peritrich species is mentioned for the first time in South America.

This record agrees with CORLISS & BROUGH (1965) and CLAMP (1987) about the cosmopolitism of *Lagenophrys* species. All of them are ectocommensals associated with crustaceans. In South America they were mentioned attached to anomuran decapods (MOUCHET-BENNATI, 1932), amphipods (THOMSEN, 1945) and astacuran decapods (CLAMP, 1988). *L. discoidea* was always found fixed to ostracods.

This species was registered in Canada, United States of America and under other names in Europe and China. CLAMP (1990) redescribed the species and established that *L. labiata* Wallengren, 1900 **non** Stokes 1887, *L. wallengreni* Abonyi, 1928 and *Circolagenophrys entocytheris* Jankowski, 1986 are their synonyms.

Ostracods were taken during 1989 from bottom samples in San Miguel del Monte lagoon (Buenos Aires province). Samples were obtained with a modified Ekman grab and a modified suber sampler. Samples of preserved material are deposited in the Microfauna Laboratory of Institute of Limnology "Dr. Raúl A. Ringuelet".

The presence of ectocommensals on *C. similis* was very common in all sampling occasions.

Observations, illustrations and measurements (Table I) were made on living material according with NENNINGER (1948) and SOMMER (1951) criterion.

Table 1. Measurements of *Lagenophrys discoidea* (n = 25).

	Mean (µm)	S.D. (µm)	C.V. %	Range (µm)
Heigth of lorica	27.97	± 4.6	16.4	23.5-37.6
Length of lorica	74.00	± 6.8	9.2	62.4-94.0
Width of lorica	67.68	± 5.8	8.5	59.5-84.4
Length of lips	24.90	± 1.8	7.2	24.0-28.8
Length lorica/width lorica	1,09	± 0.08	7.3	1.0-1.4

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Lagenophrys discoidea Kellicott, 1887.

(Figs. 1-4)

The lorica is hemispherical and flattened, being nearly circular in dorsal view (figs. 1, 3). The opening of the lorica (loricastome) is situated at one end of it (fig. 3). The lips of the loricastome are smooth and without proyections or indentations and oriented parallel to the transverse axis of the body (fig. 1). Ciliary crown protrudes through the loricastome. In the middle of the body, the macronucleus is C-shaped and is oriented on the long axis of the body (fig. 2). The single contractile vesicle is in the first third of the body.

Biological aspects. Contrary to STILLER (1960) record who found *L. discoidea* in waters with high concentrations of oxygen, our specimens were found on probes of lagoon sediments with elevated concentrations of SH_2. This condition agree with CLAMP (1990) opinion that cyprid ostracods from marshes and swamps are the most common hosts of this species.

KEISER (1921) suggested that epizoics are associated with swimming ostracods forms rather than bottom ones. In accordance with this opinion, *C. similis* can be included into the former group because is a active swimmer (KAESTNER, 1970) collected always in the water upon sediments and no burrowing in the mud.

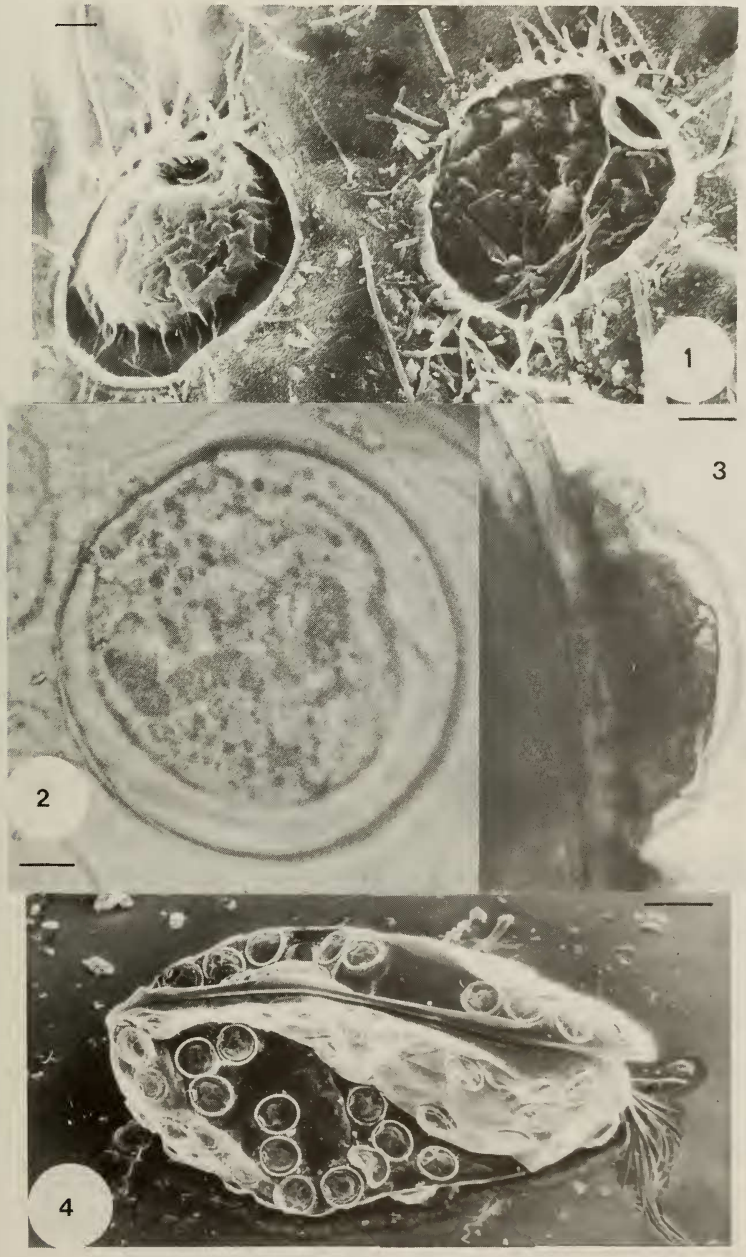
KEISER (1921) pointed out that *L. discoidea* was found on the lateral surface of the ostracod carapace and never on its margins. We found both lateral and marginal locations in our material (fig. 4). Almost all of them showed the same orientation with their loricastomes pointed to the posterior margin of the host. This distribution pattern was also observed by WALKER & ROBERTS (1982) and CLAMP (1987). They pointed out that *Lagenophrys* species intentionally choose host areas swept by currents of high velocity.

The number of epizoics attached to the host carapace is variable. WALLENGREN (1900) observed 15-20 specimens on a single individual. In our samples most of the adult host (males and females) showed an elevated number of peritrichs (x = 75 specimens/host). Density varied in relation to the size of the valves. In *C. similis* the left valve is larger than the right one. On the former we found 46 peritrichs and on the latter 32 as maximum values.

This assumption is also valid for the ostracod larval stages. The epizoics appear after the third process of molting and never before. This fact can be attributed to the short period between molts in the three first larval stages and to the small size of their carapace. We often found 1-4 epizoics/host in several ostracods between the 4th and 8th larval stage. All of them had epizoics restricted only to the lateral surface of one or both valves.

We must point out we have frequently observed some degenerate individuals (residual organism) (CLAMP, 1991) on free valves of a recent molt. They survives for a few hours with decreasing vitality.

Besides, we examined other crustaceans present in the same samples (cyclopoid and harpacticoid copepods and cladocerans) and none of them showed *L. discoidea*. This fact emphasizes that this species is restricted to ostracods.



Figs. 1-4. *Lagenophrys discoidea*: 1-3. general view (scale bar = 10µm); 2. macronucleus (scale bar = 10 µm); 4. epizoics localization on the host (scale bar = 100 um).

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